Mr. Todd Thompson

ASSOCIATE WATER RESOURCES CONTROL ENGINEER
STATE WATER RESOURCES CONTROL BOARD

These are the comments made from the hearing on the 23rd of August.

Should you have any questions, feel free to contact me.

As we discussed, no GO will apply to class A EQ Biosolids applied at less than 10 tons per acre.

Again, Superior Resources, represents technologies that can effectively produce zero pathogen Biosolids for extremely low cost.

Thanks for your assistance

John

COMMENTS
REGARDING DRAFT ENVIRONMENTAL IMPACT STATEMENT
GENERAL WASTE DISCHARGE REQUIREMENTS FOR
BIOSOLIDS LAND APPLICATION

MONDAY AUGUST 23, 1999
HEARING ROOM
901 P STREET
SACRAMENTO, CALIFORNIA

By

John M. Sullivan
SUPERIOR RESOURCES LLC
ONE SCRIPPS DRIVE
SACRAMENTO, CA. 95925

CONTACT
FAX 916 354 2751

TELEPHONE
916 354 0987

STATE WATER RESOURCES CONTROL BOARD

HONORABLE MEMBERS OF THE BOARD,
LADIES AND GENTLEMEN;

INASMUCH as the federal standards for Use or Disposal of Sewage Sludge (40 CFR 503 et seq.) define two classes of material: **Class A** pathogen requirements requires generally that the sludge be treated to an extent that the density of fecal coliform (as indicator) be less than 1000 most probable number per gram of total solids, and that this treatment to CLASS A renders the Biosolids virtually pathogen free. Concentrations of *the indicator coliform* in class B have much greater concentrations of potential pathogens; Can the Board ask the Department of Health Services if pathogen transmission and hence illnesses within the state can be quantified in economic terms from these pathogens. Does the Department of Health Services tabulate the annual costs to the State for these illnesses ?

REQUEST OF THE BOARD: In conjunction with the final EIR, can the Department of Health Services provide statistical information for the Board and for public review and inclusion in the final EIR , information on pathogen transmitted illnesses? And if the information can be made available or extrapolated, the resultant lost time suffered by residents of the State from those pathogen transmission and illnesses in *'economic terms'* as described in the DEIR. 42-1

The most recent statistical information would be valuable for later review when the GO, if adopted, would eventually be updated. Can this information be correlated with the original part 503 federal study?

If this information can be provided is it possible to know what percentage of these statistics relate to immune system impaired individuals. As the DEIR indicates 20% of the population is immune compromised, what is the impact of these individuals. 42-2
HEALTH SEVICES

COMMENT 1:It would seem logical that if Biosolids, in order to be land applied, would have to meet the exceptional quality or *"EQ"* designation to be applied and there are health risks that can be quantified, then one mitigation measure would be to treat Biosolids in the state to a true virtual "0" count of the pathogen transmission indicator. The most recent statistical information would be valuable for later review when the GO, if adopted, would be updated. Can this information be correlated with the original part 503 federal regulations study? 42-3

COMMENT 2: Since there continues to be media discussions about newly recognized pathogens and diseases ---wouldn't an additional mitigation measure be the *elimination* of pathogens entirely from Biosolids. 42-4
HEALTH

Additionally, the report indicates that landfilling of Biosolids has been reduced to less than 10% of the totals generated in the state as of the most recently available. At that rate, statistics would indicate that roughly 75,000 tons of Biosolids would still be landfilled in the year 2015, and that that tonnage could increase if Biosolids were to be banned for application in specific counties or RWQB areas. The policy of the federal and State government is to reduce to less than 50%, solid wastes in landfills by year 2000, and more dramatically in future years. Would this further restriction of land application, if adopted by local counties or municipalities cause this goal to be unreachable ? 42-5

COMMENT 3: Can the consultant provide a map that indicates the landfills that are accepting Biosolids and the quantity currently being disposed in specific landfills. 42-6
IWMB- WASTE

There continues to be concern about groundwater contamination from landfills, particularly in this local area. In those areas where issues of groundwater contamination by landfills already exist, it would seem to alarm citizens about pathogen transmission or cross-contamination by Biosolids if the quantity of Biosolids in landfills increases because of the GO adoption and subsequent public policy changes by governing boards. 42-7

Additionally, any bans or further restrictions by local counties or regional boards would most likely cause Biosolids to be transported additional distances for land applications or disposal. It seems that these policies become a slippery slope. Hauling Biosolids additional distances may compound air quality issues for "non-attainment". In the year 2015, nearly six million vehicle miles will be traveled within the state transporting Biosolids. 42-8
AIR RESOURCES

COMMENT 4: As a mitigation measure, has it been determined the average solids content of Biosolids being hauled and the favorable impact or mitigation of increasing the solids content of the Biosolids being transported ? 42-9
AIR RESOURCES

Using the assumption that Biosolids for land application have an average solids content of 22% to 25%, then those 75,000 tons, in 2015, will actually be, on a truck tonnage basis, over 300,000 tons of landfill wet waste.

CONCLUSIONS AND POSITION

We Recommend the mid-range objectives of the state board and the State of California should be the following;

1. **REDUCE** the transportation requirements for Biosolids by hauling high solids content materials.
2. **ELIMINATE** the pathogen content OR reduce it to virtually "0", so as to mitigate the Health issues within the State and particularly for those immuno-compromised individuals.
3. **EDUCATE** Californians on the beneficial re-use of Biosolids, and
4. **INCENTIVIZE** beneficial re-use in agriculture, industry, and residential uses

42-10

The State is faced with construction and expansion of POTW to satisfy the growing population of California. This investment will amount to over $15 billion in the next 15 years. The California based technology is available to produce *economically* Class "A" EQ Biosolids from every POTW for a capital investment of less than 10% of that amount and annual operational costs of less than $2 per Californian per year for the Biosolids portion of Wastewater treatment.

SHOULDN'T IT BE THE POLICY OF THE STATE TO BENEFICALLY RE-USE THIS RESOURCE IN AN ENVIRONMENTALLY SOUND FASHION, AND MITIGATE THE AIR QUALITY, AND HEALTH ISSUES SIMULTANIOUSLY?

42-1. Information on pathogen-related illness is provided in Tables E-1a to E-16b. The commenter requests that the SWRCB quantify, in economic terms, pathogen-related illnesses. Additionally, the commenter asked if the Department of Health Services tabulates annual costs to the state for illnesses related to pathogens. This information is not readily correlated to the land application of biosolids. An EIR is not intended to address such economic issues. There is no such assessment done to identify the economic impacts of disease from various pathogens, and there are no known statistics relating disease incidence to immune system-impaired individuals.

42-2. The commenter asks what the proposed project's impact would be on immune-compromised individuals. Exact impact cannot be determined because the present disease-reporting system lacks specificity. As noted in other responses to comments, numerous variables affect the community's general health. To date, no evidence indicates that any outbreaks of disease are associated with biosolids land application operations in California.

42-3. The Part 503 regulations did not look at disease incidence rates or perform a risk assessment for pathogens. The revised Appendix E, included in this final EIR as Appendix B, contains historical trends on disease cases for various pathogens, as reported for each participating county or city health department where patients sought medical attention. These data were then converted into incidence rates per 100,000 people and compared by county. Review of these statistics over time in counties where biosolids land application occurs was considered one way of determining possible trends in disease incidence. No trends were identified, and these statistics were not used to determine impact significance in the EIR.

Because there is no evidence that Class B biosolids, when properly managed, are creating outbreaks of disease, there is no rationale for requiring a zero count of pathogens in land-applied biosolids.

42-4. See Response to Comment 42-3.

42-5. There is no way to determine whether the quantity of biosolids in landfills would increase as a result of the adoption of the GO.

42-6. The commenter requests that the EIR include a map identifying landfills that accept biosolids and the quantity of biosolids currently being disposed of in specific landfills. This information has not been provided because the proposed project is the land application of biosolids for agricultural, horticultural, silvicultural and reclamation purposes, with the primary emphasis on agricultural use of biosolids. Although the use of biosolids for landfill cover is addressed as an alternative, the level of detail that the commenter requests is inconsistent with the degree of detail normally contained in a programmatic EIR. The State CEQA Guidelines, Section 15126.6(d), state that the discussion of environmental effects of alternatives in an EIR may be in less detail than the discussion of the impacts of the proposed

project. The EIR alternatives analysis is not looking at site-specific conditions at landfills throughout the state.

42-7. The commenter states that there is continuing concern about groundwater contamination from landfills, particularly in this local area. Additionally, the commenter notes that in places where issues of groundwater contamination by landfills exist, citizens are alarmed about pathogen transmission or cross-contamination by biosolids and about how the quantity of biosolids in landfills might increase because of the GO adoption and the subsequent public policy changes by governing boards. Biosolids disposal can occur only in landfills that have leachate collection and removal systems that are in accordance with State of California regulations.

The issues of adding pathogens to landfills and their relationship to groundwater contamination from landfills are not clearly defined by the commenter. The concern appears to be that tighter restrictions on land application will force more biosolids producers to transfer biosolids to landfills where environmental controls may be less restrictive. Landfills are highly regulated; impacts on groundwater from landfills is prohibited. Amending soils with biosolids in areas where landfill operations exist is not a major concern with regard to pathogens or water quality. RWQCBs have jurisdiction under both types of operations and can write waste discharge requirements that will protect against cumulative impacts in any such cases.

Also see Response to Comment 42-5.

42-8. The commenter is addressing the land ban alternative. This alternative was included in the draft EIR to address public comments raised during the scoping process. As stated in the draft EIR, this alternative does not meet the project's objectives. The commenter feels that additional restrictions on the land application of biosolids by counties or RWQCBs could lead to an increased distance for the transportation of biosolids. The commenter is correct in that the ban on land application could result in air quality impacts.

42-9. Reducing the water content of the biosolids being hauled by trucks was not considered as a mitigation measure in the EIR. It is agreed that a reduction in water content would reduce the number of trucks traveling the state's roads to move biosolids to land application sites. The impact analysis related to vehicle emissions and the related mitigation measures have been modified in response to several comments received from the public and from agencies (refer to Master Response 5). This mitigation measure will not be needed to avoid a significant adverse air quality impact from implementing the GO.

42-10. Refer to Response to Comment 42-9. There is a tradeoff in promoting the land application of high-solids-content biosolids. Drier material is more susceptible to being carried off of the application site in strong wind situations and still may not preclude the necessity of the GO.